

ABSTRACT

5 This invention provides modified phycobilisomes and phycobilisome complexes that are
supramolecular complexes with diverse spectral properties, and which may optionally be immobilized
on a manufactured solid support. The invention provides a versatile set of highly sensitive signal-
generating systems and conjugates that may be used as highly detectable tracers and labels, or in
biotransducers comprising phycobilisomes or phycobilisome complexes, and also provides methods
for performing specific binding assays using signal-generating systems comprising phycobilisomes as
detectable labels. The embodiments of the invention provide the art with an extremely sensitive,
nonisotopic detection means for assaying analytes and for sensing molecular events and environmental
conditions.